

CLAIMS:

- 5618 1. A composition for treatment of pollution comprising:
a first component comprising a carbon containing substance in
an oil phase;
5 a second component comprising a nutrient in a water phase, the
second component being formed as an emulsion within the first
component; and
a third component comprising a diluent added to the first and
second components.
2. A composition as claimed in claim 1 wherein the first
component is an assimilable carbon containing composition.
- 112? Fatty?
802 3. A composition as claimed in claim 1 wherein the first
component is selected from the group consisting of fatty acids,
esters, alcohols and combinations thereof. selected
4. A composition as claimed in claim 3 wherein the first
component is an alcohol surfactant with the ability to emulsify
fats and oils. fatty alc.
5. A composition as claimed in claim 1 wherein oil phase is a
straight chained, lipophilic carbon source.
- 25 6. A composition as claimed in claim 1 wherein the first

acid
elect one

component comprises an acid selected from the group consisting of
oleic acid, stearic acid and combinations thereof.

selected

7. A composition as claimed in claim 6 wherein the oleic acid or
stearic acid is present in the composition in concentrations
ranging between about 20% and 50% by weight.

OIL OR WATER REVERSING

8. A composition as claimed in claim 1 where in the first
component comprises an external phase and the second component is
an internal phase, the external and internal phases of the
composition being in the form of a microemulsion.

9. A composition as claimed in claim 8 wherein the microemulsion
comprises droplets have a size of about 20 to about 400 angstroms.

10. A composition as claimed in claim 9 wherein the microemulsion
comprises droplets have a size of about 100 to about 200 angstroms.

11. A composition as claimed in claim 1 wherein the carbon in the
oil phase provides an initial source of carbon for culturing
microorganisms in a pollution site being treated.

12. A composition as claimed in claim 1 wherein the second
component comprises a source of nitrogen.

*8.01
elect
nitrogen
25
OR phosphorus
in claim 13*

13. A composition as claimed in claim 1 wherein the second component comprises a source of phosphorus.

8.02 14. A composition as claimed in claim 12 wherein the nitrogen is
5 in a non-toxic form and is selected from the group consisting of
urea, cyanamide, and combinations thereof.

15. A composition as claimed in claim 13 wherein the phosphorus is
in a non-toxic form and comprises a phosphate ester.

16. A composition as claimed in claim 1 further comprising water.

17. A composition as claimed in claim 1 wherein the diluent is
present in sufficient amounts so as to facilitate the even
application of the composition to a pollution area.

18. A composition as claimed in claim 1 wherein the diluent is a
carbon containing, non-toxic, non-flammable stabilizer.

19. A composition as claimed in claim 1 wherein the diluent is
butyl carbitol [2-(2-butoxyethoxy)ethanol]. = is ethoxyate alc.

20. A composition as claimed in claim 1 wherein the diluent is
selected so as to maintain a flashpoint for the composition above
25 100°C.

21. A composition as claimed in claim 1 wherein the diluent is present in the composition in the amount of about 15 to about 35% by weight.

5 22. A composition as claimed in claim 1 wherein the diluent comprises an ethoxylated alcohol.

23. A composition as claimed in claim 1 wherein the diluent is selected to facilitate a reduction in viscosity of the first and/or second components.

24. A composition as claimed in claim 1 comprising 20 to 50% by weight carbon, 0 to 30% by weight nitrogen, 0 to 20% by weight phosphorus.

25 25. A composition as claimed in claim 24 comprising about 22% by weight carbon, about 15% by weight nitrogen, about 25% by weight phosphorus, about 22% by weight diluent and about 18% by weight water.

20 26. A composition as claimed in claim 15 wherein the phosphate ester is lauryl phosphate.

27. A method of forming composition for treatment of a pollution site, the method comprising:

method of making. (process claim)

selecting a first component comprising a carbon containing substance in an oil phase;

mixing a second component with the first component, the second component comprising a nutrient in a water phase, the second component being formed as an emulsion within the first component;
5 and

diluting the first and second components in a third component comprising a diluent selected for its ability to facilitate application of the composition to a pollution site.

10 28. A method as claimed in claim 27 wherein the carbon in the first component is formed so as to be degraded by microorganisms in the pollution site to thereby expose nutrient contained in the second component.

15 29. A method as claimed in claim 27 wherein the composition is formulated so as to have a concentration of 4 to 20 parts by weight for each 80 to 96 parts by weight of contaminant at the pollution site.

20 30. A method as claimed in claim 29 wherein the composition is diluted with water to obtain the concentration.